

Achieving sustainability

E. Kabourakis
Ecological Production Systems Unit
National Agricultural Research Foundation
P.O Box 2229, 71003 HERAKLION, Crete GREECE
Tel. +30 2810 245851 Fax. +30 2810 245873
ekab@nagref-her.gr

Factors effecting transition process

- The rising cost of energy and inputs.
- The low profit margins of conventional practices.
- The development of new technologies and practices.
- Increasing environmental and food quality awareness.
- Existence of markets for grown and processed farm products.



Factors effecting transition process

- **Agroecosystem structure and function changes when synthetic agrochemicals use is reduced.**
 - Soil structure, organic mater content, soil biota
 - Activity of and relationships among weed, insect and disease populations
 - Nutrient dynamics and cycling,
 - Energy use efficiency



Guidelines for the transition process

- **Recycling of nutrients**
 - Increased dependence on biological nitrogen fixation and mycorrhizal relationships
- **Use of renewable sources of energy**
- **Elimination of non-renewable off-farm human inputs**
- **Use of naturally-occurred materials when required**
- **Management and not control of pests**
- **Accept the physical limitations and ecological conditions of the farm**

